DOCUMENT RESUME

ED 362 308 PS 021 756

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TITLE Children's Explanations of the Causes of Wellness, Illness, and Injury.
PUB DATE Mar 93
NOTE 12p.; Paper presented at the Biennial Meeting of the Society for Research in Child Development (60th, New Orleans, LA, March 25-28, 1993).
PUB TYPE Speeches/Conference Papers (150) -- Reports - Research/Technical (143)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Childhood Attitudes; *Children; *Cognitive Development; Cognitive Processes; *Cognitive Style; Content Analysis; Individual Differences; *Physical Health
IDENTIFIERS Causal Inferences; *Causal Reasoning; Explanations; *Health Attitudes

ABSTRACT

This study examined children's explanatory style for health- and safety-related events. Fifty children (ages 8 to 11) were interviewed using 12 health-related questions based on Seligman's Content Analysis of Verbatim Explanations (CAVE) method. Children and their mothers also completed a health status form, which included questions on the children's past and current health. Children's causal statements were evaluated on four dimensions: stability (whether events occur because of stable or unstable causes), globality (whether causes have global effects or influence only that specific event), internality (whether causes are external or internal to the person), and controllability (whether the cause of an event is controllable). Results suggested individual differences in children's explanations of health events, with profiles ranging along the four dimensions. Children consistently demonstrated an adaptive, optimistic explanatory style when explaining good health events. When explaining the cause of bad health events, children focused on internality and global causes, which reflects a maladaptive explanatory style; however, they also focused on uncontrollability, which reflects an adaptive explanatory style. Results suggest that children are more proficient at processing good events; bad events are apparently more confusing to process and result in inconsistency. (MM)

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ED 362 308

"Children's Explanations of the Causes of Wellness, Illness, and Injury"[1]

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Recently, there has been increasing interest in utilizing a developmental perspective in examining the relationship between psychological and biological factors in determining the onset and cause of disease. Evidence suggests that for adults, stressful life events, in particular, may produce increased vulnerability to illness (Schleifer, Keller, & Stein, 1984). However, there are wide individual differences with regard to the impact of stress on illness outcomes, apparently influenced by individuals' perceptions, interpretations, and reactions to the stressful event (Levy, 1984). For example, Seligman, Peterson and their colleagues (Kamen & Seligman, 1988; Seligman, Kamen, & Nolen-Hoeksema, 1989) suggest that explanatory style (i.e., the explanations that people give for good and bad outcomes) influences a variety of adult health behaviors, and consequential morbidity outcomes as well as longevity. These analyses of adult

PS 021756

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[1]Paper presented in the symposium entitled "The Development of Children's Health-related Knowledge and Attitudes" at the biennial meetings of the Society for Research in Child Development, New Orleans, March, 1993

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explanatory style and its impact on health leaves unanswered the question of the developmental etiology of psychosocial constructs such as explanatory style which have been identified as significant influences on health behavior over the life-span. Where does explanatory style come from?

One method of examining the source of adult explanatory style has been to examine that of children. Children's explanatory style and its relationship to behavior has been clearly demonstrated in the area of children's achievement by Dweck and her colleagues (e.g., Dweck & Leggett, 1988). These studies suggest that the manner in which children explain their performance strongly influences whether they will, following failure, either give up or persist.

The present study examined children's explanatory style for **health- and safety-related** events. Seligman's Content Analysis of Verbatim Explanations (CAVE) method (Peterson & Seligman, 1986) was employed in this study. This measure of explanatory style employs three dimensions: stability, globality, and internality.

Causes used to explain events can be stable in time or unstable. If a person explains a bad event by a cause that is stable (rather than unstable) or explains a good event by a cause that is unstable (rather than stable), then that person will expect bad events to recur in the future and good events not to recur in the future. Additionally, causes used to explain events can affect many aspects of a person's life or they can affect only one area. If a person explains a bad event by a cause that

has global effects (instead of a cause that influences only that specific event) or if a person explains a good event by a cause that influences only that specific event (instead of a cause that has global effects) he or she will expect bad events to occur in multiple domains and good events to occur only in the specific domain. Thirdly, causes used to explain events can be internal to the individual or external. If a person explains a bad event by a cause internal to him or herself, or explains a good event by a cause external to him or herself, he or she will be more likely to be lower in self-esteem.

People who habitually explain bad events by internal, stable, and global causes and who explain good events by external, unstable and specific causes (maladaptive or pessimistic explanatory style) will be more likely to experience general and lasting symptoms of helplessness than will people with the opposite style, and thus put themselves at risk for stress-induced illness.

Seligman and his associates have speculated from time to time on a fourth dimension, controllability. We hypothesized that given that causes can be perceived as either controllable or uncontrollable, if a person explains a bad event by a cause that is controllable (rather than uncontrollable), then they will believe to have failed at controlling an event which could have been controlled, showing chronic helplessness deficits. If an individual explains a good event by a cause that is controllable, they have succeeded at controlling an event which they should have been able to control, exhibiting an optimistic explanatory

style. A person who explains a good event by a cause that is uncontrollable will believe that it happened by sheer luck or chance, and thus is not guaranteed to continue in the future. A person who explains a bad event by a cause that is uncontrollable exhibits an optimistic explanatory style because the negative outcome was due to chance or luck which is not guaranteed to happen in the future. One of the purposes of this study was to include measurement of this fourth dimension, controllability.

Thus, people with a maladaptive or pessimistic explanatory style for bad events devise explanations that focus on internal, stable, global and controllable causes for these bad events. People with an adaptive or optimistic explanatory style for bad events formulate explanations that suggest external,unstable, specific, and uncontrollable causes for these bad events.

In contrast, persons with a maladaptive or pessimistic explanatory style for good events focus their explanations on external, unstable, specific, and uncontrollable causes for these good events. And, persons with adaptive or optimistic explanatory styles for good events include in their explanations items that suggest internal, stable, global, and controllable causes for these good events. We hypothesized that children with maladaptive or pessimistic explanatory style for bad or good events would experience more illness than children with adaptive or optimistic explanatory style.

The technique for measuring explanatory style which we used, developed by Seligman, Peterson and their research group, is termed the Content Analysis of Verbatim Explanations or CAVE

method. Using this technique to measure individuals' health explanatory style requires some verbatim material (in our case transcriptions of taped interviews). Trained judges extract from this sample all items describing health events for which causal explanations are provided. For example, "I remain well because I eat foods that are healthy."

Third, three independent raters rate these event explanations on a 7-point scale for each of the explanatory dimensions (globality, stability, internality, and controllability). Thus, for the statement I just read you, the ratings might be: Globality: 4, Stability: 5 , Internality: 6, and Controllability: 2 (Peterson & Seligman, 1986; see Schulman & Castellon, 1986, for guidelines for the CAVE technique). The CAVE technique has been used in a variety of studies, has high interrater reliability, is easily trainable, and has accumulated considerable validity data (Peterson, Luborsky, & Seligman, 1983; Peterson & Seligman, 1986). Also, the CAVE is a completely blind procedure, in the sense that raters rate only one statement when they make their rating, and do not know what other statements a subject offered or the identity of the subject.

We elicited causal attributions for good and bad health and safety events by audiotaping responses to 12 open-ended questions.

Although Nolen-Hoeksema (1986) attempted to employ the CAVE for use with children 4 to 8 years of age, her results suggested that these very young children are unable to easily explain

events with much causal variability. Thus, we chose to focus our study on 8- to 11-year-old children, who appeared in our piloting for this study to readily create explanations varying along the internal, stable, global, and controllable dimensions.

Method

Sample. A sample of fifty (50) 8- to 11-year-old children (25 males and 25 females) were interviewed following their pediatric well-child exams at a private pediatric practice. Children were seen by one of four pediatricians in this practice. These children all lived with at least one parent in lower-thorough middle-socioeconomic class homes. All were in good health, with no chronic illnesses.

Procedure. Children were interviewed with our 12 health-related open-ended questions, 6 of which referenced good health events and 6 of which referenced bad health events. The interviews and responses were audiotaped with the children's knowledge. These interviews were transcribed and coded as I described earlier. Although there were 6 open-ended good health event questions and 6 open-ended bad health event questions, only three of each were usable, because there were not enough causal statements in the children's responses to be able to rank them on our four dimensions for several of the questions. This is consistent with Seligman's and Peterson's experience with similar types of data. Four raters independently rated 450 causal statments produced by the 50 children on the four dimensions.

In addition to completing the CAVE, children and their

mothers completed a health status form, which included questions on the children's past and current health.

Results and Discussion

Results suggest individual differences in children's explanations of health events, with profiles ranging along the dimensions of globality, internality, stability, and controllability.

First, children's explanations of good health events will be presented. Mean scores demonstrated that when good health events occur, children have a consistently adaptive explanatory style. Children's causal attributions are focused on internality ("this good health event happened because of me"), on stability ("this good health event will happen to me consistently"), on globablity ("this good health events will happen in other areas of my life"), and controllability ("I can also control this health event in the future"). These four findings are indications that children consistently demonstrate an adaptive, optimistic explanatory style when explaining good health events.

Next, children's explanations of bad health events are presented. Mean scores demonstrated a less distinct pattern of explanations for bad health events. When explaining the cause of a bad health event, children focus on internality ("this bad health event was my fault") and to global causes ("this bad health event can also happen in other areas of my life"), both of which are indicative of pessimistic or maladaptive explanatory style. (Remember, for good events, these dimensions revealed adaptive or optimistic explanatory style). However, when

explaining the cause of a bad health event, children focused on uncontrollability ("I can also control this bad health event in the future"), revealing an optimistic or adaptive explanatory style. The stability dimension was not salient for bad events.

These findings revealed age differences as well. Older children in our sample, aged 10-11 years, were significantly more internal for bad events, a characteristic of pessimistic explanatory style, than were younger children in our sample, aged 8-9 years. Also, for older children in our sample, reporting greater perceptions of instability when explaining good health events (indicative of a pessimistic explanatory style) was related to their reporting of more illness.

Perhaps it is difficult for children to discriminate in their attributions for good and bad events, in the manner in which adults do. Children focused on internality and global causes for both good and bad events, which are optimistic causes for good events but pessimistic causes for bad events. The inability of children to make these discriminations may handicap them in processing the occurence of bad events, and thus put them at health risk. The ability to discriminate in causal attributions along these dimensions (internality and globality) may be a sophisticated cognitive ability that develops during early adolescence. We are planning follow-up studies with young adolescents to investigate these possiblities.

Another interpretation of older children's propensity to focus on internality as causes for bad events may be that as children age, learning that bad events can occassionally be their

fault may be helpful. For example, perceiving that you have caught a cold because you unnecessarily exposed yourself to a sick friend perhaps allows you to learn from this mistake and not repeat it. Until this age, parents prevented you from exposure to sick friends, and you did not have the opportunity to either perceive this cause-and-effect relationship nor learn from it. Thus, Seligman's characterization of internality for bad events as maladaptive for adults may actually represent a learning opportunity for maturing children.

The finding that stability was not salient for bad events but was for good events suggests that children are perhaps unsure about whether to believe that bad luck never travels alone, as adults apparently perceive. Moreover, these data as a whole suggest that children are more proficient at processing good events; bad events are apparently more confusing to process and there is inconsistency in this processing.

Theoretically, these results suggest that children's explanatory style with respect to wellness, illness and injury should be important additions to our increasing complex models of children's health understanding. With an applied perspective, our findings imply that child prevention and intervention programs should be sensitive to children's explanatory style about health, and the discriminations children make between causes for good and bad health events.

Other parts of this study, which we are currently analyzing, have examined these children's mothers' explanatory style, in an effort to address the question of parental socialization of

explanatory style. We hope that these data, in combination with our findings on children's explanatory style which we have shared with you today, will illuminate the issues of how children learn health behavior.

References

Dweck, C.S., & Leggett, E.L. (1988). A social-cognitive approach to motivation and personality. Psychological Review, 95, 256-273.

Kamen, L.P., & Seligman, M.E.P. (1988). Explanatory style and health. In M. Johnston & T. Marteau (Eds.), Applications in health psychology (pp. 73-84). New Brunswick, NJ: Transaction Publishers.

Levy, S.M. (1984). The expression of affect and its biological correlates: Mediating mechanisms of behavior and disease. In C. VanDyke, L. Temoshok, & L.S. Zegans (Eds.), Emotions in health and illness: Applications to clinical practice (pp. 1-18). Orlando, FL: Grune & Stratton.

Nolen-Hoeksema, S. (1986). Developmental differences in explanatory style and its relationship to learned helplessness. Unpublished dissertation, University of Pennsylvania.

Peterson, C., Luborsky, L., & Seligman, M.E.P. (1983). Attributions and depressive mood shifts: A case study using the symptom-context method. Journal of Abnormal Psychology, 92, 96-103.

Peterson, C. & Seligman, M.E.P. (1986). Content analysis of verbatim explanations: The CAVE technique for assessing explanatory style. Unpublished manuscript, University of Pennsylvania.

Schleifer, S.J., Keller, S.E., & Stein, M. (1984). Stress effects on immunity. The Psychiatric Journal of the University of Ottawa, 10, 125-131.

Seligman, M.E.P., Kamen, L.P., & Nolen-Hoeksema, S. (1988). Explanatory style across the life span: Achievement and health. In E.M. Hetherington, R.M. Lerner, & M. Perlmutter (Eds.), Child development in life-span perspective pp. 91-114). Hillsdale, NJ: Lawrence Erlbaum Associates.